

**REMARKS****A. Status of the Specification**

Applicant has reviewed the specification as requested by the Examiner and has corrected minor grammatical errors in the specification. The corrections are found on pages 5-6 of this response. Applicant respectfully submits that no new matter has been added by these amendments.

**B. Status of the Claims and Explanations of the Amendments**

Of the 17 claims that were originally filed, Applicant had elected with traverse to prosecute claims 1 and 12-14 following an election/restriction requirement. Applicant hereby cancels claims 2-11 and 15-17 without prejudice to their being filed in a subsequent divisional application. Applicant also has canceled original claim 14 and has added new claims 18-23. Accordingly, claims 1, 12, 13, and 18-23 are currently pending in this case.

Claim 1 has been amended so that it is no longer a product-by-process claim. Additionally, claim 1 is now directed to a calcium fluoride crystal “having a transition density in the crystal that is not greater than  $1 \times 10^5/\text{cm}^2$ , and a dispersion of transition density inside an effective portion of the crystal that is in a range of  $\pm 5 \times 10^4/\text{cm}^2$ ” Support for this amendment is found at page 5, lines 1-5 of the specification. No new matter has been added by this amendment.

Support for new claims 18-23 are found throughout the specification as well. For example, support for claim 18 is found at page 13, line 17 to page 22, line 3. Support for claim 19 is found at page 14, line 16-18. Support for claim 20 is found at page 25, lines 10-11.

Support for claim 21 is found at page 5, lines 1-5. Support for claim 22 is found at page 17, line 4. And finally, support for claim 23 is found at page 17, lines 5-12. No new matter has been added by these amendments.

The Examiner contends that claims 1 and 12-14 are anticipated under 35 U.S.C. § 102(a) or e) or, in the alternative, obvious under 35 U.S.C. §103(a) over U.S. Patent No. 6,342,312 to Oba et al. (“Oba”). The Examiner also contends that claims 1 and 12-14 are anticipated under 35 U.S.C. § 102(a or e) or, in the alternative, obvious under 35 U.S.C. §103(a) over U.S. Patent No. 6,377,332 to Sakuma et al. (“Sakuma”).

C. Applicant’s Amended Claim 1 is Neither Anticipated  
by Nor Obvious Over the Cited References

Applicant’s respectfully traverse the rejection of claims 1 and 12-14 as being either anticipated by Oba or Sakuma, or in the alternative, obvious over Oba or Sakuma.. Briefly, Oba and Sakuma fail to teach, disclose, or suggest all of the elements of Applicant’s claimed invention. Accordingly, the rejections under 35 U.S.C. §§ 102(a or e) or 103(a) should be withdrawn.

Applicant points out that this application claims priority to Japanese application serial no. 2001-051027, which was filed on February 26, 2001. As the filing date of this Japanese application is before the publication date of Oba (May 29, 2001), Oba is not available as a reference under 35 U.S.C. § 102(a). Accordingly, Applicant respectfully maintains that Oba is only available as a reference under 35 U.S.C. §102(e).

Applicant further notes that Oba is assigned to Canon Kabushiki Kaisha, who is also the assignee in this case. Accordingly, because Oba is a §102(e) reference, it cannot be used as a reference under 35 U.S.C. §103(a), as set forth in 35 U.S.C. §103(c).

1. Amended Claim 1 and New Claim 18 Are Patentable over Oba and Sakuma

Oba appears to be directed to a calcium fluoride crystal that may be intentionally doped with strontium, aluminum, silicon, or magnesium [See e.g., the abstract of Oba.] Sakuma is directed to an optical member for photolithography made of a calcium fluoride crystal.

Applicant respectfully asserts that Oba and Sakuma fail to teach, disclose or suggest all of the elements of Applicant's amended claim 1, such as "a transition density in the crystal that is not greater than  $1 \times 10^5/\text{cm}^2$ , and a dispersion of transition density inside an effective portion of the crystal that is in a range of  $\pm 5 \times 10^4/\text{cm}^2$ " Applicant respectfully maintains that because not all elements are taught or disclosed, the rejection of Applicant's claim 1 as allegedly being anticipated by Oba or Sakuma should be withdrawn. MPEP § 2131.

Applicant also believes that Oba and Sakuma do not teach, disclose or suggest that a baking process should be carried out after the raw material and the scavenger are mixed, as recited in Applicant's new claim 18. Accordingly, Applicant believes that new independent claim 18 is not anticipated by Oba.

For at least these reasons, Applicant maintains that dependent claims 12, 13, and 19-23 are also not anticipated by Oba or Sakuma.

Moreover, Applicant's amended claim 1 is not obvious over Oba, as Oba cannot be used as a reference to argue obviousness, for the reasons set forth above. Accordingly, Applicant requests reconsideration and withdrawal of the rejection of claims 1, 12, and 13 under 35 U.S.C. § 103(a) as being unpatentable over Oba.

The rejection of Applicant's claim 1 under §103(a) as being unpatentable over Sakuma also should be withdrawn because not all elements are taught or suggested, as discussed above. MPEP §2143. Moreover, as claim 1 is no longer a product-by-process claim, the Office Action's

argument regarding the alleged obviousness of Applicant's invention over Sakuma, as set forth in the last paragraph of page 5 of the office action, is rendered moot.

For at least similar reasons, new claims 19-23, which depend directly from claim 18, are believed to be patentable over Sakuma. Accordingly, consideration and allowance of these claims is respectfully requested.

**CONCLUSION**

Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application.

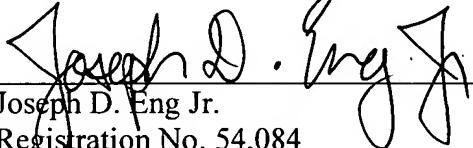
**AUTHORIZATION**

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 1232-4830. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

Dated: April 5, 2004

By:

  
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